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TECHNICAL NOTES

LAKE STATES FOREST EXPERIMENT STATION
UNIVERSITY FARM ST. PAUL 1, MINNESOTA

No. 292

Sawmill Air Dogs Save Time

Air dogs (mechanical devices for holding a log on the sawmill carriage), practical for most circular sawmills and small band mills, were developed in 1946 in cooperation with the Michigan Agricultural Experiment Station. They are simple in design, adaptable to a wide variety of headblocks, and low in cost. In contrast, the air dogs previously on the market were expensive and designed for high-production sawmills, principally of the band-headrig type.

The use of these air dogs effected a time saving of $6\frac{1}{2}$ percent over the sawing operation using hand dogs, according to a recent time study at the L. L. Johnson Lumber Company sawmill in Charlotte, Michigan. For 498 logs there were recorded the time required for (1) undogging, (2) turning and taper setting, (3) dogging, (4) reaching the setting position, (5) setting, (6) feeding to cut, and (7) the sawing operation as a whole. The study showed that air dogs saved time in operations (1), (3), (4), and (6).

In the standard 8-hour operating day $37\frac{1}{2}$ minutes were consumed by saw changing, minor repairs, and other nonproductive operations, leaving $442\frac{1}{2}$ minutes of actual operating time. The use of the air dogs resulted in the saving of $28\frac{1}{2}$ minutes or nearly one-half hour per day. The value to the mill of each operating minute is about 50 cents, so the saving amounts to \$14.25 less 75 cents per day for depreciation and operating expenses, or \$13.50 per day. The owners of the mill feel that of additional value is the greater efficiency of the block setter through (1) reduction of fatigue, (2) safer working conditions, and (3) his increased working life.

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MR

